

Best Practices

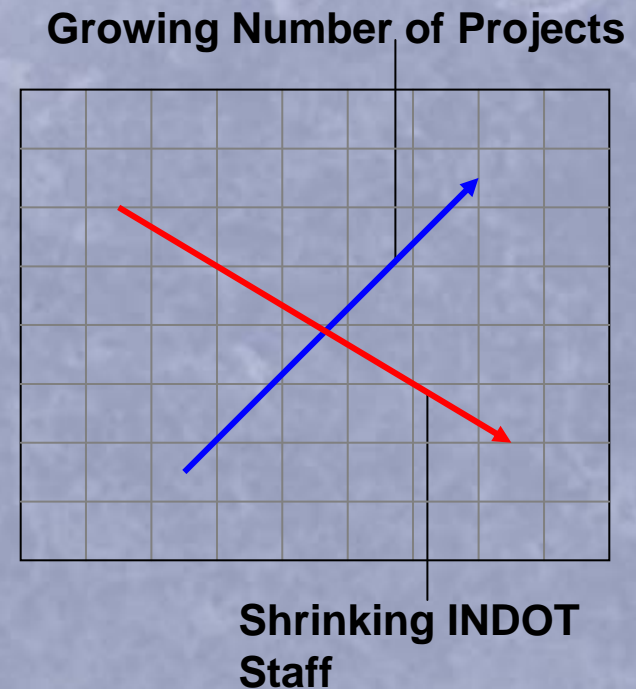
Indiana Department of Transportation Consultant Review Program

Gary Mroczka – Director
Division of Production Management
gmroczka@indot.state.in.us



Why Outsourcing Was Needed

- Shrinking INDOT staff size vs. growing number of projects
- More in-house design work as opposed to having INDOT's key resources relegated to review (5% In-House)



Why Outsourcing Was Needed


- 2002 - Contracted two consultants
 - Janssen and Spaans
 - Burgess and Niple / Beam Longest and Neff
- \$1.5 Million contracts for two years
→ \$2.1 Million in 2004
- Renewable, Negotiated Rate contract



First Six Months Working with INDOT

- Developed Program
- Published Review Rate Guidelines



 INDIANA DEPARTMENT OF TRANSPORTATION
100 North Senate Avenue
Room N755
Indianapolis, Indiana 46204-2249
(317) 232-5533 FAX: (317) 232-0238
An Equal Opportunity Employer • <http://www.state.in.us/dot>

FRANK O'BANNON, Governor
J. Bryan Nicol, Commissioner

Writer's Direct Line

New Consultant Rating Guidelines 12/20/01

TO: All Design Personnel and Consultants

THRU: Jeff Clanton
Consultant Services Manager


FROM: John Wright
Consultant Project Group Manager

SUBJECT: New Consultant Rating Guidelines

EFFECTIVE: Immediately

Supersedes: Design Manual Rating Guidelines

All consultant-designed projects will be rated using the newly developed guidelines, dated 11/19/01. Please review it carefully. You, the design consultant, are responsible for a complete submittal. See the coordinator's submittal request letter and the design manual for clarification on submittals. Should you have a question or a dispute on a rating, call the Reviewer to discuss the evaluation. If you still feel you have been judged unfairly, contact my office for further arbitration. A review board has been set up for arbitration. INDOT has spent considerable time and effort to make the Rating Guidelines as clear as possible. It is as important to us, as it is to you. Thanks for your cooperation.



2002 Program Starts

- 500 projects → **Burgess & Niple**
- 450 projects → **Janssen & Spaans**
- Full Size, Paper Plan Submittals
- Project Files



The Development of Limited Reviews

- Level 1 Criteria
 - 15 Design Elements
- Select Level 2 Criteria design
 - (Highway Safety & Serviceability)
- Normal INDOT projects = 7 milestones

Part 1 - Project Development

CONSULTANT SERVICES PROCEDURES

6-3(c)

November 1999

GENERAL PLAN REVIEW

Item No.	Items Rated	Grade Review and Str. Size/ Type	Hydraulics	Prel./Final Field Check	Design Summary	Design Hearing	PPFA	Final Plans	Tracings
1.	Design Concept	X	X	X			X	X	
2.	Critical Design Elements	X		X			X	X	
3.	Calculations		X						
4.	Plan/Report Quality	X	X	X	X	X	X	X	X
5.	Engineering Judgement								
6.	Documentation of Work	X	X		X			X	
7.	Env. Mitigation/Permit Compliance			X	X		X	X	
8.	Procedure/Standard Compliance	X	X	X	X		X	X	X
9.	Quality Assurance	X	X	X	X	X	X	X	X
10.	Cooperation	X	X	X	X	X	X	X	X

Note: A change in the project scope may result in evaluations at subsequent design stages where such an evaluation was not originally scheduled.

ITEMS RATED FOR EACH SUBMITTAL

Figure 6-3A

Consultant Evaluation



Reviewers help facilitate resolutions



- When designers find ambiguities and conflict in guidelines;
 - Design Manuals
 - Design Memorandum
 - Consultant Services Bulletins

QA/QC & FHWA oversight

- Limited Reviews
- Cross Reviews
- Full Reviews
- Element Reviews
- Construction Evaluations



“Consultant Project Group Instructional Guide Manual”

**CONSULTANT PROJECT GROUP (CPG)
INSTRUCTIONAL GUIDE
(DRAFT)**

Written for
INDIANA DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN

By
INDOT
&
FHWA

Contributing Authors:
John Wright, Greg Carleton, Russ Brittain
Edward Ratulowski, Scott Sondles

March 3, 2005

- The team developed a 60 page manual
- Manual was later incorporated into the INDOT Design Manual



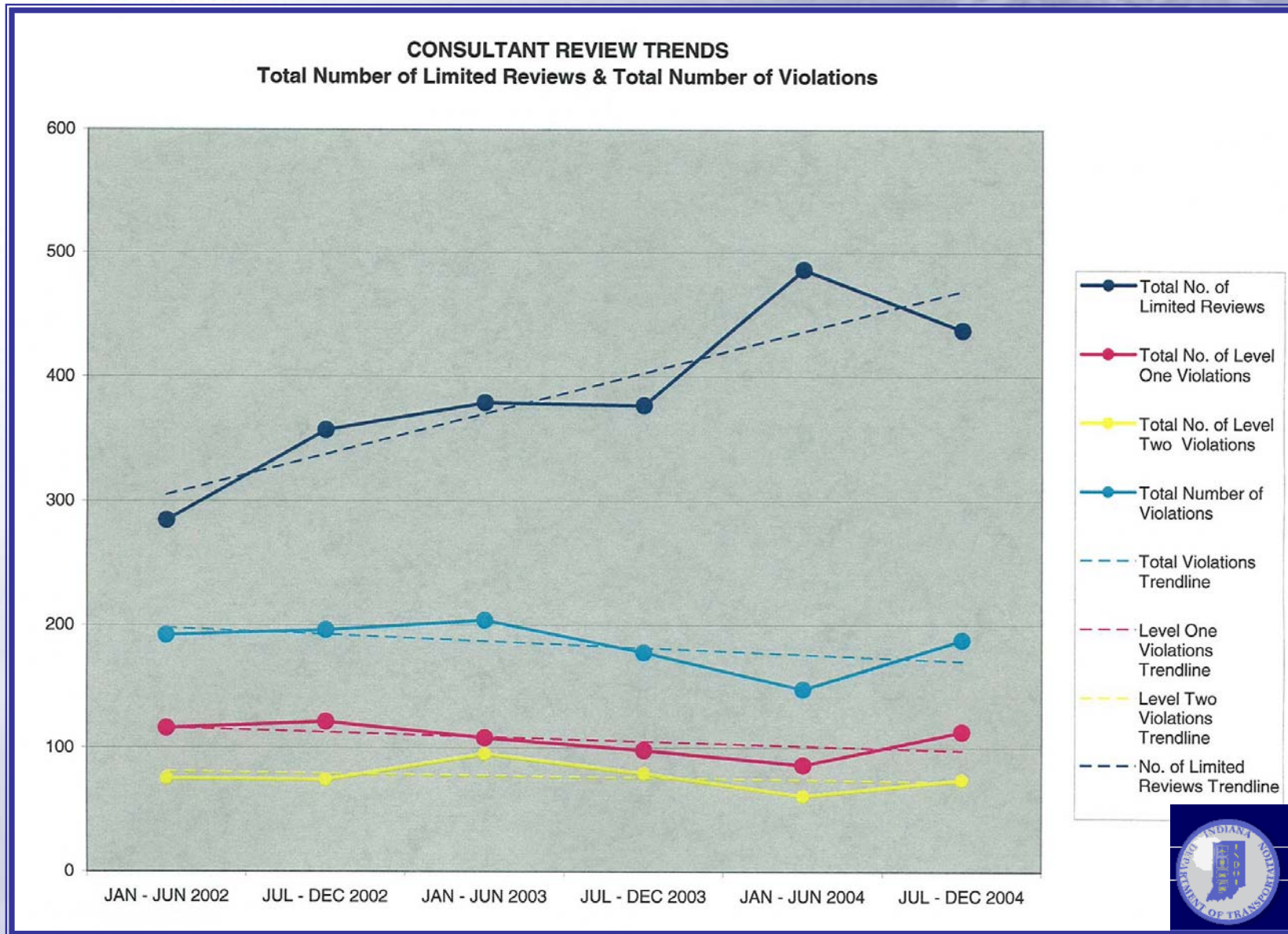
Annual Report Findings

- **2320 Reviews → '02 to '04**
- **Errors Down:**
 - Level One & Selected Level Two errors were down to 35% in 2004 from 70% in 2002.
- **Costs / Review Down:**
 - Average Cost per “desk” review decreased \$2050 ('02) to \$1500 ('04)

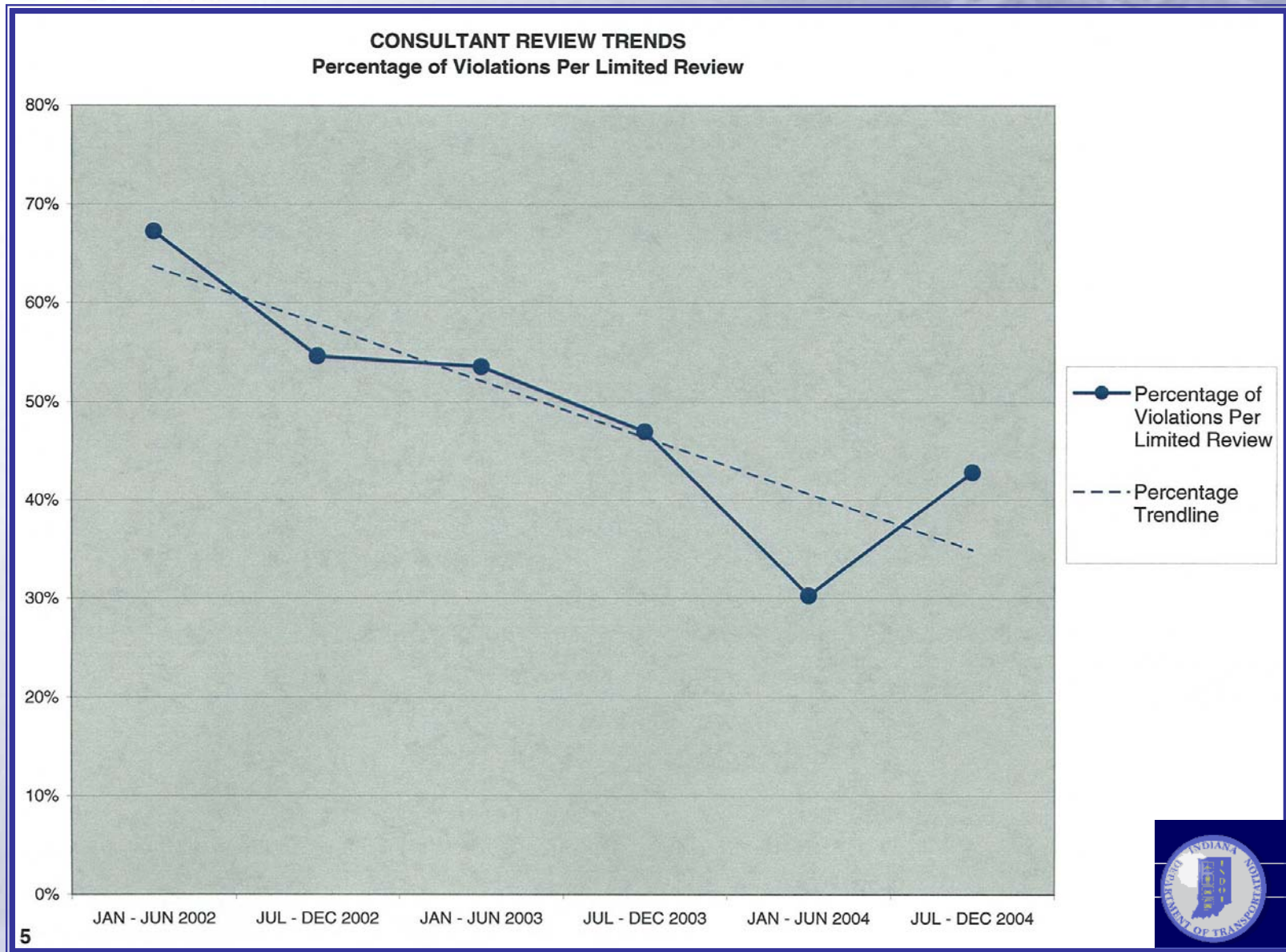


• Consultant Review Trends

- Total Number of Limited Reviews & Total Number of Violations

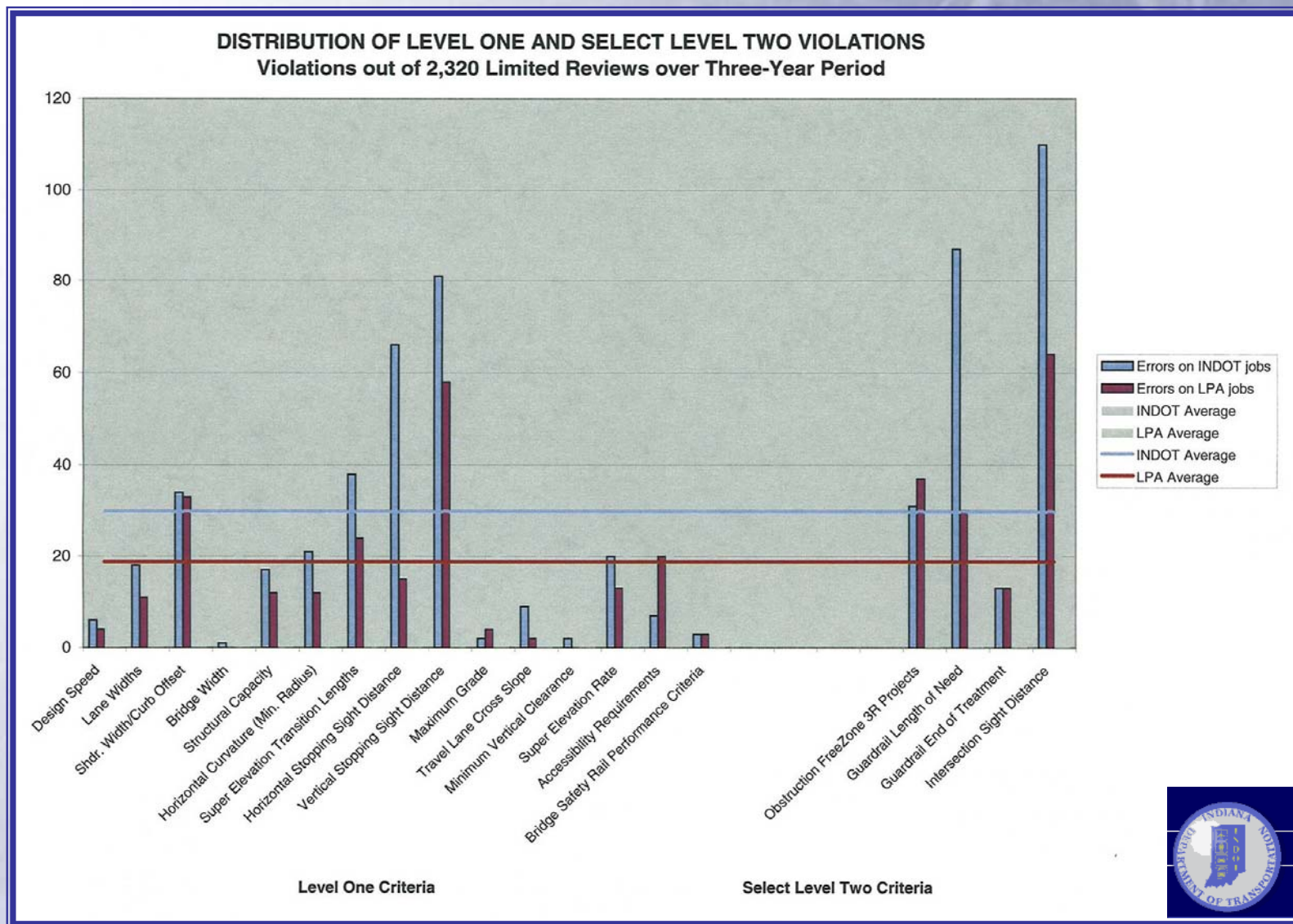


- **Consultant Review Trends**
 - Percentage of Violations Per Limited Review

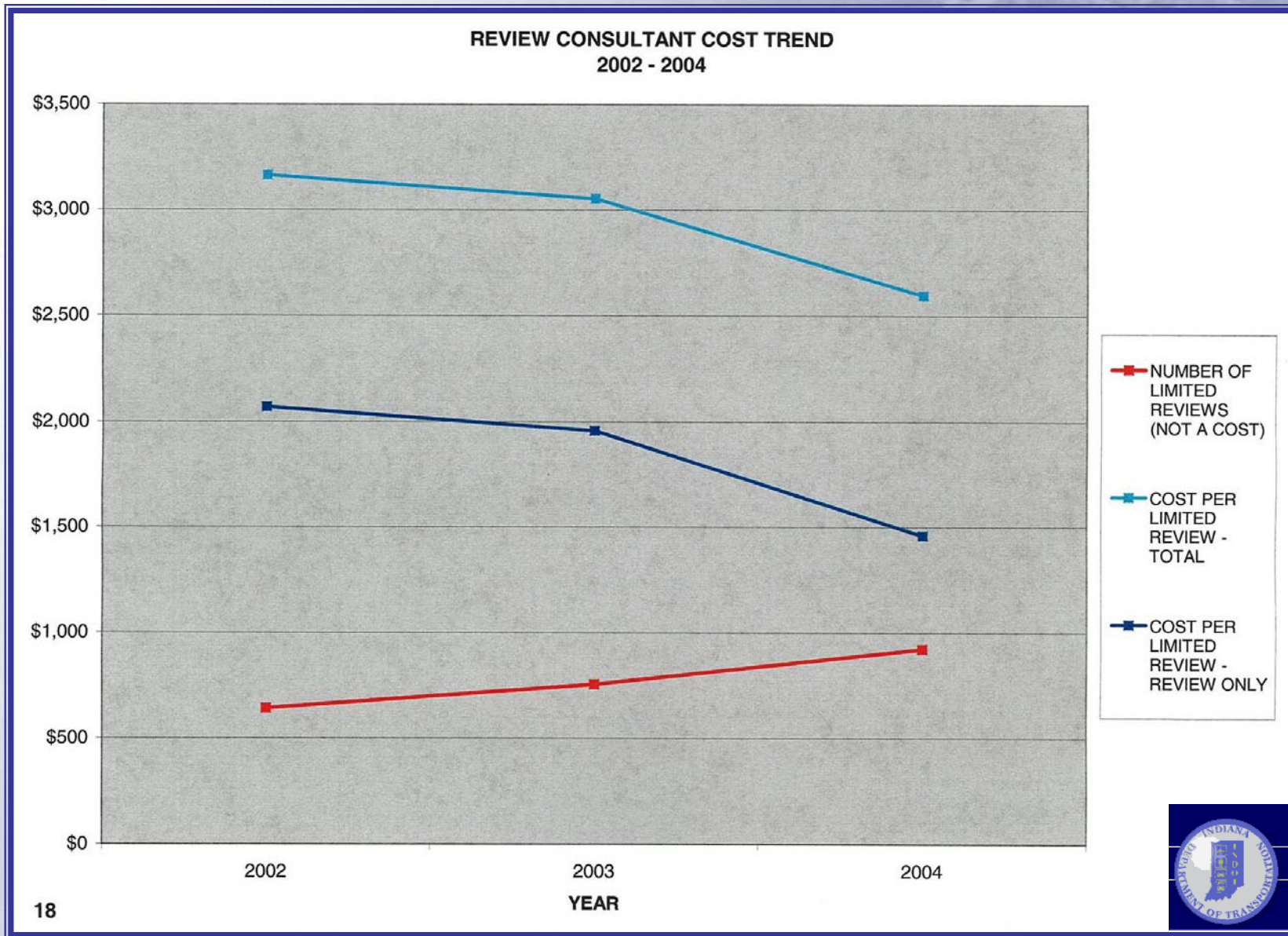


Distribution of Level One and Selected Level Two Violations

– Violations - 2,320 Limited Reviews over Three-Year Period



- Review Consultant Cost Trend



- **Annual Report Summary (Cont.):**
 - 5 Level One & Select Level Two criteria, will require training sessions in 2005.
 - Estimated cost savings of \$136,400,000 in Highway User Funds.
 - INDOT “in-house designed projects” has doubled from 5% in 2002 to 10% in 2004.



- **Annual Report Summary (Cont.):**
 - Program cost = \$6.7 million ('02 to '04)
→ \$8.5 million savings
 - Several improvements that have been identified will add to higher quality design plans.
 - Quality control is achieved through Limited Reviews, Full Reviews, Element Reviews, and Cross reviews.



Summary / Recommendations:

- Training workshop will be conducted for frequently missed Level One Criteria.
- Construction Change Orders:
 - Quantities and Pay Items
- Increase the frequency of Element Reviews
 - Quantities and Special Provisions.



Summary / Recommendations:

- Construction Evaluations Review:
Feedback → Designers
- Full Reviews to include all Bridge Elements.
- Declining percentage (50%) of errors.
 - Level One and Level Two violations indicates improvement in the design community at large.



Summary / Recommendations:

- Consultant Services Bulletins
 - Items listed a direct result of this program.
- Construction Management Division
 - Purge old Pay Items from the system.



Summary / Recommendations:

- Increase Emphasis on Element reviews
 - 28 required
- Consultant News Bulletin
 - Keyword search program



Review of Construction Evaluation Forms CHANGE ORDERS

- All Projects
 - Average 9% Change Orders
- Projects through Consultant Review Program
 - 2% Change Order Rate



QUESTIONS???

